

REMARKS
ELECTION OF SPECIES

The Examiner suggests that newly submitted claims 26-37 are directed toward an invention that is independent or distinct from the invention originally claimed. Accordingly, the Examiner has withdrawn claims 26-37 as being directed toward a non-elected invention.

Inasmuch as Applicants believe that the independent claims, as now submitted, are allowable, and they are properly deemed generic with respect to the Examiner's election requirement, Applicants believe that this requirement is moot.

Nonetheless, Applicants believe that further explanation as to this Restriction Requirement (or Requirement to Elect Species) is required. To this extent, Applicants do not acquiesce as to the appropriateness of this election requirement, and traverse the same. Applicants attorney contacted the Examiner, and the Examiner indicated – by way of voice mail – that authority for the Election Requirement was found at MPEP 818.02(a).

Applicants do not understand how this section of the MPEP provides authority for this requirement. Applicants note that a Restriction Requirement or a requirement for an Election of Species has not been levied during this prosecution or any previous prosecution from which the current application derives. Applicants also note that originally presented claim 10 includes several polar organic compounds including both metal carboxylates and high-HLB surfactants. In this respect, Applicants believe that the Examiner had searched each of the polar organic compounds originally presented in claim 10.

Again, if the Examiner has authority to “constructively” make an Election of Species based upon Applicants original presentation for prosecution on the merits, Applicants would appreciate an explanation of this authority.

INFORMALITIES

Claim 38 has been amended to recite “polymer cement.”

Claims 11 and 23 have been amended to be consistent with the claims from which they depend.

REJECTIONS UNDER U.S.C. § 103

Europe 009250 in view of Schulze 2,721,185

The Examiner has rejected claims 1-8, 10, 16-18, 21-22, and 24-25 under 35 U.S.C. § 103(a) as being unpatentable over EP '250 in view of Schulze '185. The Examiner believes that it would have been obvious to one of ordinary skill in the art to add at least one processing aid to the latex of EP '250 in view of Schulze '185 suggestion to add a processing aid (plasticizer/softener) to a latex before solid state mixing. Reconsideration is respectfully requested.

Claim 1 has been amended by incorporating the limitations of claim 12. Accordingly, the subject rejection has been rendered moot as it pertains to claim 1 and the claims dependent thereon.

As the rejection pertains to claim 21, and the claims dependent thereon, reconsideration is respectfully requested. Applicants note that the Examiner indicated that claims 21-22 and 24-25 are nonetheless obvious in view of the cited prior art in view of Europe '250 teaching the use of solvent to swell the elastomeric particles. Applicants believe that perhaps there has been a misunderstanding with respect to the terminology of the claims. In particular, claim 21, and the claims dependent thereon, are limited to providing a polymer cement. As those skilled in the art appreciate, polymer cements and polymer latexes are distinct compositions. As Applicants have explained on page 4 of the written description, polymer cements include a solution of at least one rubber elastomer in an organic solvent. In contradistinction, aqueous lattices include suspensions of at least one rubbery elastomer within a medium in which the elastomer is generally not thought to be soluble (*e.g.*, water). Accordingly, a rubber cement is distinct from the latex solutions taught by EP '250 and Schulze '185. Likewise, polymer cements are distinct from aqueous lattices that include solvent-swollen polymer.

EP 009250 in view of Schulze 2,721,185 and in view of Baranwal 3,824,206

The Examiner has rejected claims 2-6 under 35 U.S.C. 103(a) as being unpatentable over EP '250 in view of Schulze '185 and further in view of Baranwal '206.

In view of the amendment made to claim 1, this rejection has been rendered moot.

EP 009250 in view of Schulze 2,721,185 and in view of

Baranwal 3,824,206 further in view of Blow, Takaki 5,006,603

The Examiner has rejected claims 11 and 23 under 35 U.S.C. § 103(a)) as being unpatentable over EP '250 in view of Schulze '185 and further in view of Baranwal '206 further in view of Blow, Takaki '603.

In view of the amendment made to claim 1, this rejection has been rendered moot.

EP 009250 in view of Schulze 2,721,185 and further in view of Lawson 5,332,810

The Examiner has rejected claims 11 and 23 under 35 U.S.C. § 103(a) as being unpatentable over EP '250 in view of Schulze '185 and further in view of Lawson '810. The Examiner contends that it would have been obvious to use the claimed functionalized rubber in view of Europe's '250 process in view of Lawson teaching functionalized rubber having a predictable molecular weight range for mixing with carbon black.

While claim 12 has been cancelled, reconsideration is respectfully requested for claim 1 to the extent that the limitations of claim 12 are now included within claim 1.

Applicants maintain that the Examiner has not established a *prima facie* case of obviousness where the rubber includes a functionalized rubber because there is no teaching or suggestion in the prior art to use a functionalized rubber in the process of Europe '250. The Examiner contends that the teaching in Lawson '810 that a functionalized rubber having predictable molecular weight can be mixed with carbon black is insufficient to combine this teaching with Europe '250 to arrive at the claimed invention. Applicants do not believe that the mere fact that functionalized rubber has been mixed with carbon black in the prior art provides any suggestion or motivation to employ the same in the process taught by EP '250. The only motivation comes from the Applicants' invention through the use of improper hindsight. Moreover, the record is absent of any teaching, suggestion or motivation to combine teachings directed toward solvent-based systems (e.g., Lawson) with aqueous-based systems (e.g., Europe '250).

Furthermore, the benefits achieved by the Applicants in using their claimed invention bolsters the fact that the claimed invention is not obvious. In particular, the

solid-state mixing of rubber and carbon black in the presence of processing additives – which were likewise added in the solid state – gives compositions with less than desirable carbon black dispersion. But, when the processing additives are added to the rubber prior to drying – as in the claimed invention – improved carbon black dispersion was obtained. Applicants direct the Examiner's attention to Table III on page 17 of the written description where the composition of the present invention shows improved Surfanalyzer dispersion indexes at various stages of the solid-state mixing process. These increased Surfanalyzer dispersion indexes are indicative of improved carbon black dispersion.

There is no question that the prior art fails to suggest this improvement or motivate one skilled in the art to change conventional procedures (e.g., addition of processing additives in the solid state) in order to obtain the benefits that Applicants have discovered through practice of their invention. Moreover, there is no motivation or suggestion in Europe '250, nor Schulze '185, nor Lawson '110 to combine their teachings for any reason.

Newly added independent claim 39 further defines over EP '250, either alone or in combination with any other reference of record, inasmuch as Schulze '185 teaches the combination of elastomeric particles with non-elastomeric particle. The non-elastomeric particles taught by EP '250 are excluded from this claim.

Paton 2,617,782 in view of Schulze 2,721,185 and Baranwal 3,824,206

The Examiner has rejected claims 1-10, 16-18, 21-22, 24-25, and 38 under 35 U.S.C. § 103(a) as being unpatentable over Paton '782 in view of Schulze '185 and Baranwal '206.

With respect to the rejections of claim 1, as well as the claims dependent thereon, the amendment to claim 1 to incorporate the limitations of claims 12 has rendered this rejection moot.

With respect to the rejection of claim 21, the claims dependent thereon, and claim 38, reconsideration is respectfully requested. In particular, and for the reasons stated above, claim 21, the claims dependent thereon, and claim 38 are limited to providing a polymer cement. In this respect, these claims define over Schulze '185, which is concerned with rubber lattices. With respect to Baranwal '206, there is no

teaching or suggestion to employ a polar organic compound as a processing aid. In this respect, a *prima facie* case of obviousness has not been established as to how or why one skilled in the art would elect to combine the teachings of Paton '782 with Baranwal '206 and/or Schulze '185.

Paton 2,617,782 in view of Schulze 2,721,185 and
Baranwal 3,824,206 and Blow, Takaki 5,006,603

The Examiner has rejected claims 11 and 23 under 35 U.S.C. § 103(a) as being unpatentable over Paton '782 in view of Schulze '185 and Baranwal '206 and Blow and Takaki '603.

Inasmuch as claim 1 has been amended to include recitation from claim 12, this objection has been rendered moot.

Paton 2,617,782 in view of Schulze 2,721,185 and
Baranwal 3,824,206 and Lawson 5,332,810

The Examiner has rejected claims 12-15 under 35 U.S.C. § 103(a) as being unpatentable over Paton '782 in view of Schulze '185 and Baranwal '206 and further in view of Lawson '810. As with the previous rejection respecting functionalized rubber, the Examiner opines that it would have been obvious to use the claimed functionalized rubber as the rubber in the process of Paton '782 in view of Lawson et al. teaching a functionalized rubber having a predictable molecular weight range for mixing with carbon black.

While claim 12 has been cancelled, reconsideration is respectfully requested for claim 1 to the extent that the limitations of claim 12 are now included within claim 1. As stated above, Applicants maintain that the Examiner has not established a *prima facie* case of obviousness where the rubber includes a functionalized rubber because there is no teaching or suggestion in the prior art to use a functionalized rubber in the process of Paton '782 or Schulze '685. The Examiner contends that the teaching in Lawson '810 that a functionalized rubber having predictable molecular weight can be mixed with carbon black is insufficient to combine this teaching with the references to arrive at the claimed invention. Applicants do not believe that the mere fact that functionalized rubber has been mixed with carbon black in the prior art provides any

suggestion or motivation to employ the same in the process taught by the other references. The only motivation comes from the Applicants' invention through the use of improper hindsight.

Furthermore, the benefits achieved by the Applicants in using their claimed invention bolsters the fact that the claimed invention is not obvious. In particular, the solid-state mixing of rubber and carbon black in the presence of processing additives – which were likewise added in the solid state – gives compositions with less than desirable carbon black dispersion. But, when the processing additives are added to the rubber prior to drying – as in the claimed invention improved carbon black dispersion was obtained. Applicants direct the Examiner's attention to Table III on page 17 of the written description where the composition of the present invention shows improved Surfanalyzer dispersion indexes at various stages of the solid state mixing process. These increased Surfanalyzer dispersion indexes are indicative of improved carbon black dispersion.

There is no question that the prior art fails to suggest this improvement or motivate one skilled in the art to change conventional procedures (e.g., addition of processing additives in the solid state) in order to obtain the benefits that Applicants have discovered through practice of their invention. Moreover, there is no motivation or suggestion in any of the references to combine their teaching.

CONCLUSION

In view of the foregoing, a Notice of Allowance of the pending claims is earnestly solicited. Should the Examiner have any questions, the undersigned welcomes a phone call.

The Commissioner is specifically authorized to charge Deposit Account No. 06-0925 in the amount of \$200.00 for the payment of fees associated with the addition of the new independent claim 39. In the event that an additional fee is due or that any amount should be credited, the Commissioner is authorized to charge any additions fees or credit any overpayment to Deposit Account No. 06-0925.

Respectfully submitted,



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